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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/628,051   | 07/28/2003  | Chun-Huai Li         | TOP 299             | 4065             |
| 23995  | 7590        | 03/07/2006           | EXAMINER            |                  |
| RABIN & Berdo, PC<br>1101 14TH STREET, NW<br>SUITE 500<br>WASHINGTON, DC 20005 |             |                      | CHOW, DOON Y        |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2677                |                  |

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/628,051 | <b>Applicant(s)</b><br>LI, CHUN-HUAI |  |
|                              | <b>Examiner</b><br>Dennis-Doon Chow  | <b>Art Unit</b><br>2677              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 10 is objected to because of the following informalities: Claim 10 recites "a first PTT" at line 2 and "the first TFF" at line 3. It appears that they should be changed to "a first TFT" and "the first TFT". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Asano et al (2002/0070909).

Regarding to claims 2 and 9, the admitted prior art discloses an active-matrix organic light emitting diode display, comprising: a rectangular pixel unit (3, Fig. 2a), having an indium tin oxide region disposed therein having an opening region disposed therein with L shape (5, Fig. 2a).

The admitted prior art fails to disclose the regions being rectangular shape.

Asano, in the same field, discloses an EL display device comprising a rectangular light emitting region in a rectangular pixel unit (Fig. 6A).

In light of Asano, it would have been obvious to one ordinary skill in the art to change the L shape regions of the admitted prior art to rectangular regions because having a rectangular indium tin oxide region and a rectangular opening region (light emitting region) in the display provides better and smoother images than the L shape regions.

Regarding to claims 2-3 and 10-11, the admitted prior art further discloses a first and second TFT regions (41 and 43, Fig. 2a) and a capacitor region (42, Fig. 2a). The admitted prior art fails to disclose the regions are arranged in a hoof shape or an L shape. However, it would have been obvious to one of ordinary skill in the art to move the capacitor (42) to the top or to bottom of the indium tin oxide region so that the width of the modified indium tin oxide region is increased, and the modified indium tin oxide region is closer to square shape which generates smoother images.

Regarding to claim 4, the indium tin oxide region further has an isolation region enclosing the opening region (52, Fig. 2b).

Regarding to claim 5, the admitted prior art further discloses the isolation region comprises silicon nitride (page 3, lines 5-9).

Regarding to claim 6, the admitted prior art further discloses the opening region has an organic illuminating material layer and an indium tin oxide layer contacted thereto (32 and 31, Fig. 2b).

Regarding to claim 7, the admitted prior art further discloses the rectangular pixel unit further has a metal layer (34, Fig. 2b) on the surface thereof contacting the organic illuminating material layer.

Regarding to claim 8, since the admitted prior art does not teach using any specify metal as the metal layer, and aluminum is a conventional metal to use in a OLED device, it would have been obvious to one of ordinary skill in the art to use the aluminum as the metal layer.

### ***Response to Arguments***

4. Applicant's arguments filed 12/19/05 have been fully considered but they are not persuasive.

Applicant argues that the light emitting regions in Asano's Figure 6A are illustrated only schematically, and Asano's Figure 17 and the related description thereof makes it clear that the shape of the opening region that Asano actually uses is irregular. Examiner disagrees with applicant's arguments. Asano's Figure 6A clearly shows an area enclosed by a dotted line region is a light emitting region and it is rectangular. Figure 6A is one of many different embodiments in Asano's invention. Fig. 9A is another embodiment that shows a light emitting region having an irregular shape. Figure 17 is another embodiment that shows a light emitting region having an irregular shape. There is no teaching in Asano just that the light emitting region in Figure 17 is relate to the light emitting region in Figure 6A. The fact that Asano teaches the light emitting region has more one shape other than the rectangular shape shown in Figure 6A is irrelevant.

### ***Conclusion***

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2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yoshioka (US 6323918) teaches a rectangular indium tin oxide region (see col. 2, lines 47-57).

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis-Doon Chow whose telephone number is 571-272-7767. The examiner can normally be reached on 8:30-5:00.

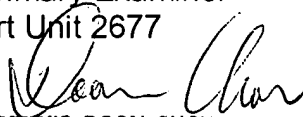
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on 571-272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D. Chow  
March 3, 2006

Dennis-Doon Chow  
Primary Examiner  
Art Unit 2677



DENNIS-DOON CHOW  
PRIMARY EXAMINER